UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,217	01/30/2002	Yoichiro Sako		8450

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EXAMINER
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ART UNIT	PAPER NUMBER
2136	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/049,217	SAKO, YOICHIRO
	Examiner	Art Unit	
	Brandon S. Hoffman	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 May 2006</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2,4-12 and 14-44</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,2,4-12 and 14-44</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>6-19-06</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 1, 2, 4-12, and 14-44 are pending in this office action.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 2,

2006 has been entered.

Response to Arguments

3.   Applicant argues that the combination of references do not teach a strong

watermark that survives data processing and a weak watermark that is erased during

data processing. Rhoads et al. teaches, at column 14, lines 27-35, that two watermarks

go through data processing (such as compression or scaling). One of the watermarks is

weakened after the data processing step, while the other watermark remains intact. It is

the position of the examiner that a weakened watermark fulfills the same purpose as a

watermark that has been erased. Rhoads et al.'s intention of the two watermarks is to

ensure that at least one watermark remains for copy protection purposes.

Claim Rejections

4.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

5.   Claims 1-5, 8-15, and 18-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Rhoads et al. (U.S. Patent No. 6,522,769).

Regarding claims 1 and 11, Rhoads et al. teaches a recording medium/method

- In which a plurality of management information are embedded and recorded into content data in a plurality of forms of different remaining intensities, the plurality of forms of different remaining intensity comprising a watermark of strong remaining intensity and a watermark of weak remaining intensity, wherein management information written into the watermark of the strong remaining intensity is more severe than the management information written into the watermark of the weaker remaining intensity (col. 14, lines 12-26);

- **Wherein said management information in the watermark of the strong remaining intensity remains even if a signal process is executed to the content data and said management information in the watermark of the weak remaining intensity is erased by executing a signal process to the content data** (col. 14, lines 27-35).

Regarding claims 2 and 12, Rhoads et al. teaches wherein said management

information includes at least one of copy management information for managing a

copying operation of the content data and reproduction management information for

managing a reproducing operation of the content data (col. 13, lines 44-50).

Regarding claims 4 and 14, Rhoads et al. teaches wherein said form of a strong

remaining intensity by which said management information is embedded in the content

data is a form such that said management information is spread-spectrum diffused and

multiplexed into the content data (col. 27, lines 21-28).

Regarding claims 5 and 15, Rhoads et al. teaches wherein said form of the

strong remaining intensity by which said management information is embedded in the

data of said contents is a form such that said management information is inserted either

at one of a first peak and a second peak in a predetermined range of the content data or

at a position near one of said first peak and said second peak (col. 14, lines 20-23).

Regarding claims 8 and 18, Rhoads et al. teaches wherein among said plurality

of management information, a managing condition of the management information

embedded in the form of the strong remaining intensity by which said management

information is embedded in the content data is more severe than that of the

management information embedded in the form of the weak remaining intensity by

which said management information is embedded in the content data (col. 14, lines 27-

35).

Regarding claim 9, Rhoads et al. teaches wherein said management information

is a copy management information, the management information embedded in the form

of the strong remaining intensity by which said management information is embedded in

the content data is a managing condition showing that copying is impossible (col. 14,

lines 16-20).

Regarding claim 10, Rhoads et al. teaches wherein when said management

information is reproduction management information, the management information

embedded in the form of the strong remaining intensity by which said management

information is embedded in the content data is a managing condition showing that

reproduction is impossible (col. 13, lines 44-50).

Regarding claim 19, Rhoads et al. teaches a recoding method for a recording

medium, comprising the steps of:

- Adding first management information to input content data (col. 14, lines 16-20);

- Adding second management information whose remaining intensity is weaker

  than a remaining intensity of said first management information to the content

  data to which said first management information has been added (col. 14, lines

  27-30);

- Performing a recording signal process on the content data to which said first and second management information have been added, and recording resultant data into the recording medium (col. 13, lines 61-67);

- **Wherein said first management information remains even if a signal process is executed to the content data and said second management information is erased by executing a signal process to the content data (col. 14, lines 27-35).**

Regarding <u>claim 20</u>, <u>Rhoads et al.</u> teaches wherein a managing condition by said first management information is more severe than a managing condition by said second management information (col. 14, lines 27-35).

Regarding <u>claim 21</u>, <u>Rhoads et al.</u> teaches wherein each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible (col. 14, lines 16-20).

Regarding <u>claims 22 and 27</u>, <u>Rhoads et al.</u> teaches a recoding and/or reproducing method for a recording medium, comprising the steps of:

- Reading out content data from the recoding medium in which at least first management information and second management information whose remaining intensity is weaker than a remaining intensity of said first management

information have been embedded and recorded in the data of said contents (col. 14, lines 16-20 and lines 27-30), and discriminating whether said second management information has been detected (col. 14, lines 9-11);

- Wherein when it is determined that said second management information has been detected, a recording and reproducing operation are controlled based on managing condition shown by said second management information (col. 14, lines 6-11);

- **Wherein said first management information remains during the recording and reproducing operation and said second management information is erased during the recording and reproducing operation** (col. 14, lines 27-35).

Regarding claims 23 and 28, Rhoads et al. teaches wherein when it is determined that said second management information is not detected, the recording and/or reproducing operation are controlled based on said first management information (col. 14, lines 30-35).

Regarding claims 24 and 31, Rhoads et al. teaches wherein the managing condition by said first management information is more severe than a managing condition by said second management information (col. 13, lines 61-63).

Regarding claims 25 and 33, Rhoads et al. teaches

- Wherein when each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible (col. 14, lines 16-20), and

- When it is determined that said second management information has been detected, the recording operation is controlled based on said second management information (col. 14, lines 16-18), and when it is determined that said second management information is not detected, the recording operation is inhibited based on said first management information (col. 14, lines 18-20).

Regarding claims 26 and 34, Rhoads et al. teaches

- Wherein when each of said first and second management information is reproduction information, the managing condition by said first management information is a managing condition showing that reproduction is impossible (col. 13, lines 44-50), and

- When it is determined that said second management information has been detected, the reproducing operation is controlled based on said second management information (col. 14, lines 16-18), and when it is determined that said second management information is not detected, the reproducing operation is inhibited based on said first management information (col. 14, lines 18-20).

Regarding <u>claim 29</u>, <u>Rhoads et al.</u> teaches wherein when it is determined that said first management information is not detected, the recording and/or reproducing operation is controlled based on said second management information (col. 14, lines 9-11).

Regarding <u>claim 30</u>, <u>Rhoads et al.</u> teaches wherein when it is determined that neither said first nor second management information is detected, the recording and/or reproducing operation is controlled based on additional information added to the content data (col. 6, lines 26-43).

Regarding <u>claim 32</u>, <u>Rhoads et al.</u> teaches

- Wherein when each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible (col. 14, lines 16-20), and

- When it is determined that said second management information has been detected, the recording operation is controlled based on said second management information (col. 14, lines 16-18), and when it is determined that said second management information is not detected, the recording operation is inhibited based on said first management information (col. 14, lines 18-20).

Regarding <u>claim 35</u>, <u>Rhoads et al.</u> teaches a copy control method for contents data, the method comprising the steps of:

- Discriminating whether second management information has been detected from the content data in which at least first management information and the second management information whose remaining intensity is weaker than a remaining intensity of said first management information have been added (col. 14, lines 16-20 and lines 27-30); and

- When it is determined that said second management information has been detected, controlling a copying operation of the data of said contents based on a managing condition shown by said second management information (col. 14, lines 6-11);

- **Wherein said first management information is copied during the copying operation and said second management information is not copied during the copying operation** (col. 14, lines 27-35).

Regarding <u>claim 36</u>, <u>Rhoads et al.</u> teaches wherein when it is determined that said second management information is not detected, the copying operation of the data of said contents is controlled based on said first management information (col. 14, lines 30-35).

Regarding claim 37, Rhoads et al. teaches wherein a managing condition by said first management information is more severe than that by said second management information (col. 13, lines 61-63).

Regarding claim 38, Rhoads et al. teaches

- Wherein when each of said first and second management information is copy management information, the managing condition by said first management information is a managing condition showing that copying is impossible (col. 14, lines 16-20), and

- When it is determined that said second management information has been detected, the copying operation of the data of said contents is controlled based on said second management information (col. 14, lines 16-18), and when it is determined that said second management information is not detected, the copying operation of the content data is inhibited based on said first management information (col. 14, lines 18-20).

Regarding claim 39, Rhoads et al. teaches wherein when said second management information permits the copying of the contents data the copying operation of the content data is permitted based on said second management information, and said second management information which is added to said content data which is copied is rewritten to a managing condition for inhibiting the copying of the content data (col. 13, lines 58-67).

Claims 6, 7, 16, and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Rhoads et al. (USPN '769) in view of AAPA (Applicant's admitted

prior art).

Regarding claims 6 and 16, Rhoads et al. teaches all the limitations of claims 1

and 3, & 11 and 12, respectively, above. However, Rhoads et al. does not specifically

teach wherein said form of the weak remaining intensity by which said management

information is embedded in the content data is a form such that said management

information is inserted into lower bits of the content data.

AAPA teaches wherein said form of the weak remaining intensity by which said

management information is embedded in the content data is a form such that said

management information is inserted into lower bits of the content data (specification,

page 1, last paragraph).

It would have been obvious to one of ordinary skill in the art, at the time the

invention was made, to combine embedding into lower bits of the content data, as

taught by AAPA, with the medium/method of Rhoads et al. It would have been obvious

for such modifications because lower bit embedding of watermarks is an easy way to

provide a weak watermark.

Regarding claims 7 and 17, Rhoads et al. teaches all the limitations of claims 1 and 3, & 11 and 12, respectively, above. However, Rhoads et al. does not specifically teach wherein said form of the weak remaining intensity by which said management information is embedded in the content data is a form such that said management information is inserted into a high-order coefficient at the time when the content data have been compressed.

AAPA teaches wherein said form of the weak remaining intensity by which said management information is embedded in the content data is a form such that said management information is inserted into a high-order coefficient at the time when the content data have been compressed (specification, page 1, last paragraph).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine embedding into high-order coefficients when the content data is being compressed, as taught by AAPA, with the medium/method of Rhoads et al. It would have been obvious for such modifications because high-order coefficient embedding of watermarks during compression is an easy way to provide a weak watermark.

Claims 40-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhoads et al. (USPN '769) in view of Kuroda et al. (U.S. Patent No. 6,633,723).

Regarding claim 40, Rhoads et al. teaches a reproducing apparatus for

reproducing a recording medium, comprising:

- At least first management information and second management information

  whose remaining intensity is weaker than remaining intensity of said first

  management information have been embedded and recorded (col. 14, lines 16-

  20 and lines 27-30);

- Detecting said second management information from the content data read out

  from said recording medium by said head (col. 14, lines 9-11); and

- A discriminating circuit to which a detection result by said detecting circuit is

  supplied and which controls an on/off operation of said switching circuit unit

  based on a managing condition shown by said second management information

  when the detection result showing that said second management information has

  been detected by said detecting circuit is supplied thereto (col. 14, lines 16-18);

- **Wherein said first management information remains even if a signal**

  process is executed to the content data and said second management

  information is erased by executing a signal process to the content data

  (col. 14, lines 27-35).

Rhoads et al. does not specifically show the circuits described in the reproducing

apparatus.

Kuroda et al. teaches a read head for reading out content data (fig. 9, ref. num

51), a signal processing unit for performing a signal process to the content data read out

from said recording medium by said head (fig. 9, ref. num 60 and col. 22, lines 51-53), a

switching circuit unit to which an output signal from said signal processing unit is applied

(fig. 9, ref. num 57 and col. 22, lines 11-25), detecting circuit for detecting management

information (fig. 9, ref. num 52 and col. 21, lines 35-42), and a discriminating circuit (fig.

9, ref. num 56).

It would have been obvious to one of ordinary skill in the art, at the time the

invention was made, to combine specific circuits of a reproducing apparatus, as taught

by Kuroda et al., with the apparatus of Rhoads et al. It would have been obvious for

such modifications because the circuits of Kuroda et al. provide a tangible reproducing

device that, when combined with Rhoads et al., provide at least two watermarks used

for managing reproducing of generations of data.

Regarding claim 41, Rhoads et al. as modified by Kuroda et al. teaches wherein

when it is determined that said second management information is not detected, the

on/off operation of said switching circuit unit is controlled based on said first

management information (see col. 14, lines 30-35 of Rhoads et al.).

Regarding claim 42, Rhoads et al. as modified by Kuroda et al. teaches further

comprising a converting unit to which the output signal from said signal processing unit

is supplied and which converts said supplied output signal into an analog signal (see fig.

9, ref. num 64 of Kuroda et al.), and wherein said switching circuit unit has a first

switching circuit to which the output signal from said signal processing unit is supplied

and a second switching circuit to which an output signal from said converting unit is

supplied (see fig. 9, ref. num 57 of Kuroda et al., 57 goes to 58 and 64).

Regarding claim 43, Rhoads et al. as modified by Kuroda et al. teaches wherein

when each of said first and second management information is copy management

information on/off operations of said first and second switching circuits are controlled

based on a managing condition shown by said second management information (see

col. 14, lines 6-11 of Rhoads et al.), and when said second management information

cannot be detected, said first switching circuit is turned off based on said first

management information (see col. 14, lines 30-35 of Rhoads et al.).

Regarding claim 44, Rhoads et al. as modified by Kuroda et al. teaches wherein

when each of said first and second management information is reproduction

management information, on/off operations of said first and second switching circuits

are controlled based on managing conditions shown by said second management

information (see col. 14, lines 6-11 of Rhoads et al.), and when said second

management information cannot be detected, said second switching circuit is turned off

based on said first management information (see col. 14, lines 30-35 of Rhoads et al.).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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